

What is claimed is:

- 1 1. A method comprising:
2 determining a timing relationship between a video window and a capture
3 raster, wherein the video window is within a display raster; and
4 adjusting a pixel clock to avert shear of the video window.
- 1 2. The method of claim 1, further comprising:
2 determining that the video window is within the timing of the capture
3 raster; and
4 quickly moving image shear out of the video window.
- 1 3. The method of claim 1, further comprising:
2 determining that the video window is not fully within the timing of the
3 capture raster; and
4 setting the pixel clock to cause the display raster to drift slowly.
- 1 4. The method of claim 3, further comprising:
2 setting a color burst generator to phase-lock within the display raster.
- 1 5. The method of claim 4, setting a color burst generator to phase-lock within
2 the display raster further comprising setting the color burst generator to a predetermined
3 nominal setting.
- 1 6. The method of claim 2, quickly moving image shear out of the video
2 window further comprising:
3 determining that the video window is later than the capture raster; and
4 adjusting the pixel clock to quickly retard the display raster.
- 1 7. The method of claim 6, further comprising:

2 adjusting a color burst generator to maintain a viewable image on the
3 display raster.

1 8. The method of claim 7, further comprising:
2 retrieving frequency error information from a table of predetermined
3 phase-locked loop parameters; and
4 calculating a color burst adjustment using the frequency error information.

1 9. The method of claim 2, quickly moving image shear out of the video
2 window further comprising:
3 determining that the video window is earlier than the capture raster;
4 adjusting the pixel clock to quickly advance the display raster; and
5 adjusting a color burst generator to maintain a viewable image on the
6 display raster.

1 10. The method of claim 3, setting the pixel clock to cause the display raster
2 to drift slowly further comprising:
3 determining that the pixel clock is quickly advancing the display raster;
4 and
5 setting the pixel clock to slowly advance the display raster.

1 11. The method of claim 3, setting the pixel clock to cause the display raster
2 to drift slowly further comprising:
3 determining that the pixel clock is quickly retarding the display raster; and
4 setting the pixel clock to slowly retard the display raster.

1 12. The method of claim 1, further comprising determining a capture raster
2 scan line number.

1 13. The method of claim 12, further comprising determining a display raster
2 scan line number.

1 14. The method of claim 13, further comprising:
2 determining a capture raster field polarity; and
3 determining a display raster field polarity.

1 15. The method of claim 1, determining a timing relationship between a video
2 window and a capture raster further comprising:
3 periodically monitoring the capture raster and the display raster.

1 16. The method of claim 15, wherein the monitoring period is not an exact
2 multiple of a field time.

1 17. The method of claim 1, adjusting a pixel clock to avert shear of the video
2 window further comprising:
3 identifying a vertical retrace period; and
4 invoking an interrupt service routine to adjust the pixel clock.

1 18. A method comprising:

2 determining a timing relationship between a video window and a capture

3 raster, wherein the video window is within a display raster; and

4 adjusting a pixel clock to maintain a shear-free display of the video

5 window.

1 19. The method of claim 18, adjusting the pixel clock to maintain a shear-free
2 display of the video window further comprising:
3 determining that the timing relationship between the video window and
4 the capture raster is above a predetermined threshold; and
5 setting the pixel clock to slowly retard the display raster.

1 20. The method of claim 18, adjusting the pixel clock to maintain a shear-free
2 display of the video window further comprising:
3 determining that the timing relationship between the video window and
4 the capture raster is below a predetermined threshold; and
5 setting the pixel clock to slowly advance the display raster.

1 21. The method of claim 18, adjusting the pixel clock to maintain a shear-free
2 display of the video window further comprising:
3 determining that the timing relationship between the video window and
4 the capture raster is within a predetermined range; and
5 not adjusting the pixel clock.

1 22. The method of claim 19, determining that the timing relationship between
2 the video window and the capture raster is above a predetermined threshold further
3 comprising:
4 determining a rate of drift between the capture raster and the display
5 raster.

1 23. The method of claim 22, determining a rate of drift between the capture
2 raster and the display raster further comprising:
3 sampling a first indicator of the capture raster;
4 sampling a second indicator of the display raster;
5 differencing the first indicator from the second indicator to produce a
6 result; and
7 comparing the result with a previously calculated result to produce a
8 difference of differences.

1 24. The method of claim 23, further comprising averaging the difference of
2 differences with previously stored difference of differences.

1 25. The method of claim 18, further comprising:
2 retrieving frequency error information from a table of predetermined
3 phase-locked loop parameters.

1 26. The method of claim 25, retrieving frequency error information from a
2 table of predetermined phase-locked loop parameters further comprising:
3 retrieving an upper parameter, a middle parameter, and a lower parameter
4 from a group of neighboring phase-locked loop parameters within the table; and
5 designating the middle parameter as a default setting.

1 27. A method comprising:
2 determining a timing relationship between a video window and a capture
3 raster, wherein the video window is within a display raster;
4 adjusting a pixel clock to avert shear of the video window; and
5 adjusting the pixel clock to maintain a shear-free display of the video
6 window.

1 28. The method of claim 27, adjusting the pixel clock to avert shear of the
2 video window further comprising:
3 monitoring the timing relationship between the display raster and the
4 capture raster, wherein the monitoring is performed at a first frequency.

1 29. The method of claim 28, adjusting the pixel clock to maintain a shear-free
2 display of the video window further comprising:
3 monitoring the timing relationship between the display raster and the
4 capture raster, wherein the monitoring is performed at a second frequency.

1 30. The method of claim 29, further comprising:
2 monitoring the timing relationship between the display raster and the
3 capture raster, wherein the first frequency is greater than the second frequency.

1 31. An article comprising a medium storing instructions for enabling a system
2 to:
3 calculate a timing relationship between a video window and a capture
4 raster, wherein the video window is within a display raster; and
5 adjust a pixel clock to avert shear of the video window.

1 32. The article of claim 31, wherein the instructions further enable the system
2 to:
3 determine that the video window is within the timing of the capture raster;
4 and
5 quickly move image shear out of the video window.

1 33. The article of claim 31, wherein the instructions further enable the system
2 to:
3 determine that the video window is not within the timing of the capture
4 raster; and
5 set the pixel clock to cause the display raster to drift slowly.

1 34. The article of claim 33, wherein the instructions further enable the system
2 to:
3 set a color burst generator to phase-lock to the display raster.

1 35. The article of claim 34, wherein the instructions further enable the system
2 to:
3 set the color burst generator to a predetermined nominal setting.

1 36. The article of claim 31, wherein the instructions further enable the system
2 to:
3 determine that the video window is later than the capture raster; and
4 adjust the pixel clock to quickly retard the display raster.

1 37. The article of claim 36, wherein the instructions further enable the system
2 to:
3 adjust a color burst generator to maintain a viewable image on the display
4 raster.

1 38. The article of claim 33, wherein the instructions further enable the system
2 to:
3 determine that the video window is before the capture raster;
4 adjust the pixel clock to quickly advance the display raster; and
5 adjust a color burst generator to maintain a viewable image on the display
6 raster.

1 39. The article of claim 33, wherein the instructions further enable the system
2 to:
3 determine that the pixel clock is quickly advancing the display raster; and
4 set the pixel clock to slowly advance the display raster.

1 40. The article of claim 33, wherein the instructions further enable the system
2 to:
3 determine that the pixel clock is quickly retarding the display raster; and
4 set the pixel clock to slowly retard the display raster.

1 41. An article comprising a medium storing instructions for enabling a system
2 to:
3 determine a timing relationship between a video window and a capture
4 raster, wherein the video window is within a display raster; and
5 adjust a pixel clock to maintain a shear-free display of the video window.

1 42. The article of claim 41, further storing instructions for enabling a system
2 to:
3 determine that the timing relationship between the video window and the
4 capture raster is above a predetermined threshold; and
5 set the pixel clock to slowly retard the display raster.

1 43. The article of claim 41, further storing instructions for enabling a system
2 to:
3 determine that the timing relationship between the video window and the
4 capture raster is below a predetermined threshold; and
5 set the pixel clock to slowly advance the display raster.

1 44. The article of claim 41, further storing instructions for enabling a system
2 to:
3 determine that the timing relationship between the video window and the
4 capture raster is within a predetermined range; and
5 not adjust the pixel clock.

1 45. The article of claim 42, further storing instructions for enabling a system
2 to:
3 determine a rate of drift between the capture raster and the display raster.

1 46. The article of claim 45, further storing instructions for enabling a system
2 to:
3 sample a first indicator of the capture raster;
4 sample a second indicator of the display raster;
5 difference the first indicator from the second indicator to produce a result;
6 and
7 compare the result with a previously calculated result to produce a
8 difference of differences.

1 47. The article of claim 46, further storing instructions for enabling a system
2 to:
3 average the difference of differences with previously stored difference of
4 differences.

1 48. An article comprising a medium storing instructions for enabling a system
2 to:
3 determine a timing relationship between a video window and a capture
4 raster, wherein the video window is within a display raster;
5 adjust a pixel clock to avert shear of the video window; and
6 adjust the pixel clock to maintain a shear-free display of the video
7 window.

1 49. The article of claim 48, further storing instructions to enable a system to:
2 monitor the timing relationship between the display raster and the capture
3 raster, wherein the monitoring is performed at a first frequency.

1 50. The article of claim 49, further storing instructions to enable a system to:
2 monitor the timing relationship between the display raster and the capture
3 raster, wherein the monitoring is performed at a second frequency.

1 51. The article of claim 50, further storing instructions to enable a system to:
2 monitor the timing relationship between the display raster and the capture
3 raster, wherein the first frequency is greater than the second frequency.